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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/511,461 | 03/14/2006 | Michael Charles Richard Bartlett | 13058N/041750 | 2845 |
| 32885 7590 07/27/2007 STITES & HARBISON PLLC 424 CHURCH STREET SUITE 1800 NASHVILLE, TN 37219-2376 | | | EXAMINER SUHOL, DMITRY | |
| | | | ART UNIT 3725 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

ED

Office Action Summary

Application No.

10/511,461

Applicant(s)

BARTLETT ET AL.

Examiner

Dmitry Suhol

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/26/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

The current statement acknowledging the duty to disclose uses improper language "material information" rather the required language of "material to patentability" and refers to CFR Section 1.56(a) rather than 1.56 as required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, there is no antecedent basis for "the axis of the shaft". It is possible for the shaft to have a plurality of axis and therefore the one being referred to is unclear. Additionally, it is not clear what is meant by "the axes of the first and second

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lengths being in substantially the same place". How can such occupy the same location?

Regarding claim 3, it is not clear what structure encompasses the second elbow portion, is it part of the elbow portion 20 or some other structure. Furthermore, it appears that applicants disclosure teaches that the outlet for conveying coolant medium from a roll is encompassed by channel 4 and aperture 14 (see page 8, lines 24-26 and figure 3), therefore it is not clear as to how the elbow portion plays into the outlet structure.

Regarding claim 20, it is not clear what is meant by "the axes of the first and seconds lengths of the channel being in substantially the same place". How can such occupy the same place/location?

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-29 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 1, the claim calls for "a hollow shaft mounted for rotational movement within the housing", however it is clear from the disclosure that it is not the shaft (8) which rotates but rather the housing (2), while the shaft remains in a

substantially fixed position, see page 6, lines 22-23. Note: if the shaft were made to rotate then the feed line/pipe attached to elbow (20) would have to rotate as well which would be extremely difficult and complex. Therefore the limitation of a rotatable shaft was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The remainder of the office action considers the claims as best understood.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 13-14-15, 17-20, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Pawlak et al (WO 01/88452). Pawlak discloses an arrangement for cooling a roll containing all the claim elements including, a hollow shaft (5 and 11) mounted to a rotatable housing and a cooling medium line (13) having an inlet and outlet (14) communicating with an elbow portion (elbow inlet shown in figure 2) with a first length being substantially perpendicular to the axis of the shaft and the second length extending from the first length in the direction of the shaft (see figure 4 with respect to the elbow and its respective portions attached to member 13). As best

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understood limitations of a second medium cooling line and a second elbow portion is read onto lines 9 and the 90 degree elbow 14 as shown in figure 2. Distal end being sealed at 19 as required by claim 14 is shown in figure 1.

Claims 1, 7, 9, 10, 12-13, 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Jarrett (GB 2046386). Jarrett discloses an arrangement for cooling a roll containing all the claim elements including, a hollow shaft (formed by elements 9, 20) mounted to a rotatable housing (2) and a cooling medium line (3) having an inlet and outlet communicating with an elbow portion (6) with a first length being substantially perpendicular to the axis of the shaft and the second length extending from the first length in the direction of the shaft (see figure 1). Limitation of claims 7, 9-10 and 12 are shown as thread (8) where the thread is considered to encompass the limitation of an elongated ridge, furthermore the thread in the second length runs in the direction of the axis passing through the center of the shaft in the vertical direction. A spacer as required by claim 16 is read onto o-ring (14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pawlak '452 in view of Tim '135 or Ives '207. Tim is relied upon to teach that it is known to manufacture a rotary joint heat exchange device such that an annular flange connection is utilized to secure an elbow (108) and a shaft member (52). Ives also teaches a connection like that of Tim (figures 1 and 2). Therefore it would have been obvious to one having ordinary skill in the art, at the time of the claimed invention, to have provide an annular connection between the elbow portion and member 11 of Pawlak for providing a strong, durable and detachable connection between the two.

Claims 8 and 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jarrett (GB 2046386). It would have been obvious to include an internal and external connection means in the first length of the Jarrett elbow for the purpose of flexibility of connection (i.e. attachment to a pipe member having either an internal or external connection or differently sized piping), since the examiner takes official notice that providing an internal and an external thread on a pipe coupling is well known in the art.

Claims 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pawlak '452. Absent any disclosure of criticality, advantage or solution to a given problem it is considered that the tapering of the shaft as claimed is a design choice and does not patentably distinguish over the prior art. With respect to the outlet channel being threaded, such construction would have been obvious for the purpose of

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providing a discharge pipe attachment to the device as such construction is well known in the art (official notice taken).

Allowable Subject Matter

Claims 24-29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Suhol whose telephone number is 571-272-4430. The examiner can normally be reached on Mon - Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dmitry Suhol/
Primary Examiner
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ds